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2176
Jhu

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application Ser. No.: 09/466,627

Group Art Unit: 2176

Filing Date: 12/17/1999

Examiner: M. NGUYEN

Attorney Docket Number YO999-429

Inventor Name(s): LO ET AL.

Title: METHOD AND APPARATUS FOR CONVERTING BETWEEN DATA SETS AND
XML DOCUMENTS

Commissioner for Patents
P.O. Box 1450
Alexandria VA 223131-1450

DECLARATIONS UNDER

37 C.F.R. 1.131

Sir:

Pursuant to rule 37 C.F.R. 1.131, Applicants submit herewith

- the declaration of Shyh-kwei Chen, one of the inventors;
- the declaration of Jen-Yao Chung, manager of Shyh-kwei Chen at the time of the invention.

These two declarations show the date of the invention to be prior to the Turau reference. The other inventor, Mingling Lo, is no longer employed by the assignee of the application.

Accordingly, his declaration has not been obtained; however Shyh-kwei Chen has declared that he believes his co-inventor would agree with this declaration.


Also attached hereto as appendix Z is an e-mail from Dr. Turau along with a printout of a web page referred to in the e-mail. This e-mail claims that Dr. Turau's first "public release" was March 1, 1999, but the only evidence of this is the web page which shows the date only, and not what events or content were alleged to be part of this public release. Dr. Turau is not certain of

the exact date of the document originally cited by the Examiner. Applicants accordingly respectfully submit that it is not at all clear what the date of publication of the material cited by the Examiner actually is.

In any case, the declarations show that the inventors conceived of the invention in the summer of 1998 and worked on it continuously from then until the filing of the application, working part time for the remainder of 1998 and full time in all of 1999 on the invention. Accordingly, Applicants have shown a conception date prior to any alleged publication by Turau and diligent work in reducing the invention to practice thereafter until the filing of the present application in December of 1999.

Removal of Turau as a reference is accordingly respectfully requested.

Respectfully submitted by,


Anne E. Barschall, Reg. No. 31,089
914-332-1019; fax 914-332-7719
6/13/2004

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited this date with the United States Postal Service as first class mail in an envelope addressed to

Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

On 6/13/04 (date)
By A. E. Barschall (signature)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application Ser. No.: 09/466,627

Group Art Unit: 2176

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Title: METHOD AND APPARATUS FOR CONVERTING BETWEEN DATA SETS AND
XML DOCUMENTS

Commissioner for Patents
P.O. Box 1450
Alexandria VA 223131-1450

DECLARATION OF JEN-YAO CHUNG, PH.D.

Sir:

I, Jen-Yao Chung, Ph.D., hereby declare as follows:

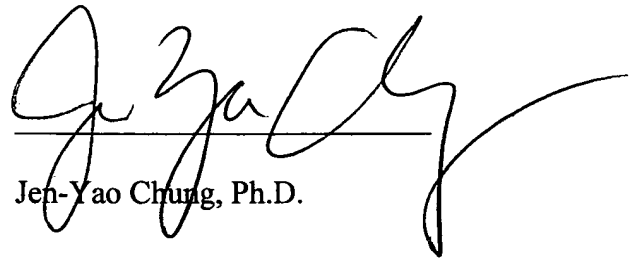
1. During the years 1998 and 1999, I was manager to Shyh-Kwei Chen and responsible for supervising his project relating to converting database information to XML. I was also familiar with the work of his co-inventor Ming-Ling Lo.
2. Attached as Exhibit A is a copy of an e-mail from Denise Dyko to Kevin Leahy and Michael Swanson dated September 17th, 1998. This e-mail mentions to store and retrieve XML data in current enterprise data formats, and to enable rapid exploitation of existing data in e-commerce XML applications while continuing to support existing applications against that data, relating to this project. This e-mail is a printout from my personal computer and is a business record that I maintain. I therefore trust its accuracy.

3. This e-mail evidences the proposed project which matured into the patent application identified above. Based on this e-mail, I believe that Shyh-Kwei Chen and Ming-Ling Lo conceived of their invention, namely the idea of establishing a mapping from lists and scalars corresponding to at least one data source into XML elements and attributes, during the summer of 1998.
4. Attached as Exhibit B, hereto are three e-mails from Denise Dyko to myself dated September 10th, 1998, from myself to Denise Dyko and Chungti Liang dated September 25th, 1998, and from Denise Dyko to Don Ault, John Thompson, and Eric Porter dated October 13th, 1998. These emails are business records I maintain in my computer and I therefore trust their accuracy. These emails describe the basis for a universal data management architecture, which lead to the funding for the XML Access Server OS/390 project. Confidential information not relating to the present application has been blacked out; however, the information relevant to establishing dates for this application is still visible.
5. Attached as Exhibit C, hereto is an e-mail from Denise Dyko to Gerry Meyer dated November 30th, 1998. This email is a business record I maintain in my computer and I therefore trust its accuracy. This email explains that Shyh-Kwei Chen and Ming-Ling Lo were projected to work full time on the project (2PY) that matured into the present application during all of 1999. Confidential information not relating to the present application has been blacked out; however, the information relevant to establishing dates for this application is still visible.
6. Attached as Exhibit D, hereto are five e-mails from Denise Dyko to Ming-Ling Lo dated December 3rd, 1998, from Denise Dyko to George Zagelow dated December 4th, 1998,

from Denise Dyko to Gerry Meyer dated December 4th, 1998, from Denise Dyko to David Fallside dated December 9th, 1998, and from myself to Denise Dyko dated December 10th, 1998. These emails are business records I maintain in my computer and I therefore trust their accuracy. These emails mention that Shyh-Kwei Chen and Ming-Ling Lo were to present the newly funded XML 390 Access Server project to the XML summit that was held on December 15th and 16th, 1998.

7. Attached as Exhibit E, hereto is a set of presentation slides dated December 15th, 1998. These presentation slides are business records I maintain in my computer and I therefore trust its accuracy. The presentation outlines that Shyh-Kwei Chen and Ming-Ling Lo were to work full time during 1999 on the project that matured into the patent application identified above.
8. Based on the documents identified above, my recollection is refreshed regarding the events of 1998 and 1999. I therefore remember that Shyh-Kwei Chen and Ming-Ling Lo
 - conceived of their invention of the idea of establishing a mapping from lists and scalars corresponding to at least one data source into XML elements and attributes during the summer of 1998;
 - worked at least part time during the fall of 1998 to reduce this invention to practice;
 - worked full time reducing this invention to practice during the entire year of 1999.

7. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.



Jen-Yao Chung, Ph.D.

June 10, 2004

Date

Exhibit A



Jen-Yao Chung/Watson/IBM

05/27/2004 04:16 PM

This document expires on

05/27/2103

To ShyhKwei Chen/Watson/IBM@IBMUS

cc

bcc

Subject Re: Research Project Funding for XML in OS/390

Denise Y. Dyko 09/17/98 03:33 PM

Denise Y. Dyko 09/17/98 03:33 PM

To: Kevin Leahy/Poughkeepsie/IBM@IBMUS, Michael Swanson/Poughkeepsie/IBM@IBMUS
cc: Jen-Yao Chung/Watson/IBM@ibmus, Denise Gorski/Poughkeepsie/IBM@IBMUS, Michael
Oliver/Poughkeepsie/IBM@IBMUS, Bob Schloss/Watson/IBM@IBMUS, ShyhKwei
Chen/Watson/IBM@IBMUS, Nancy P Riggs/Watson/IBM@IBMUS, Thomas
Rozmus/Poughkeepsie/IBM@IBMUS, Douglas Archer/Poughkeepsie/IBM@ibmus, Chungti
Liang/Poughkeepsie/IBM@IBMUS, David Fallside/Santa Teresa/IBM@ibmus, Susan Malaika/Santa
Teresa/IBM@IBMUS, Mike Baskey/Poughkeepsie/IBM@IBMUS
From: Denise Y. Dyko/Poughkeepsie/IBM @ IBMUS
Subject: Research Project Funding for XML in OS/390

I met with Jen-Yao Chung, Bob Schloss, and ShyhKwei Chen yesterday in Hawthorne to review what research can best contribute to OS/390's strategy for XML. (Kevin, I'm the focal point for OS/390 XML strategy.) Our discussion resulted in the following project description:

In addition to storing documents in repositories/databases in XML format, there is a need to store and retrieve XML data in current enterprise data formats, to enable rapid exploitation of existing data in e-commerce XML applications while continuing to support existing applications against that data. This research project will propose techniques and algorithms to manage the automatic composing of XML documents from existing enterprise data, and conversion back to proprietary formats from XML. The project will include effective ways to prepare XML documents from multiple enterprise data sources using XML name spaces, and algorithms to combine/merge DTDs. Initial deliverables will include articulation of the OS/390 XML strategy and its validation via proof of concept. The OS/390 division, with research, will also undertake validation with customers and ISVs.

This project definition is aimed at rapid execution of the corporate XML strategy, which sees the value of XML as its enablement of volume growth in e-business, to the point where NT and UNIX platforms cannot scale rapidly enough to compete with OS/390.

I need your help to get this project included in the 390 division's funding of research projects. Would you like me to set up a meeting to review this project definition and OS/390's role in XML in general? With whom should I work to ensure that this project is prioritized with the other work being funded in research?

Cheers, Denise

Lotus Notes Address: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS

VM Address: KGNVMC.DYKO@VM

Internet Address: DYD@VNET.IBM.COM

Phone: (914)435-6903, t/l 8-295-6903



Exhibit B

Jen-Yao Chung/Watson/IBM

05/27/2004 04:17 PM

This document expires on
05/27/2103

To ShyhKwei Chen/Watson/IBM@IBMUS


cc

bcc

Subject Re: XML project proposal and Meeting on Sept. 16, 11am

Denise Y. Dyko 09/10/98 03:50 PM

Denise Y. Dyko 09/10/98 03:50 PM

To: Jen-Yao Chung/Watson/IBM@ibmus
cc: ShyhKwei Chen/Watson/IBM@IBMUS, Michael Swanson/Poughkeepsie/IBM@IBMUS, Thomas Rozmus/Poughkeepsie/IBM@IBMUS
From: Denise Y. Dyko/Poughkeepsie/IBM @ IBMUS
Subject: Re: XML project proposal and Meeting on Sept. 16, 11am 

Let's start at 1:00, in your office. The project description is excellent. Thank you.

Mike, Jen-Yao feels the project description is the basis for a universal data management architecture. (We're both very enthused about the possibilities.) Is there anyone else you feel should attend this meeting? We'll be identifying specific research activities to support this project.

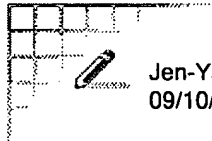
Cheers, Denise

Lotus Notes Address: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS

VM Address: KGNVMC.DYKO@VM

Internet Address: DYD@VNET.IBM.COM

Phone: (914)435-6903, t/l 8-295-6903



Jen-Yao Chung
09/10/98 03:23 PM

To: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS
cc: ShyhKwei Chen/Watson/IBM@IBMUS
From: Jen-Yao Chung/Watson/IBM @ IBMUS
Subject: XML project proposal and Meeting on Sept. 16, 11am

Hi Denise, can you come down on Sept. 16. I'm free after 11am. We want meet from 11am or 1pm. Please let me know your availability. Thanks. -chung

Project: Enterprise Data Management Using XML

- Instead of storing documents to the repositories/databases in XML format, there is still a need for storing enterprise data in current format due to large volume and business issues. We are proposing techniques and algorithms to manage the automatic composing of XML documents from existing enterprise data, and converting back to proprietary formats from XML - We also look for effective ways to prepare XML documents from multiple enterprise data sources using XML name space, and DTD combining/merging algorithms.

Jen-Yao Chung/Watson/IBM

05/27/2004 04:15 PM

This document expires on

05/27/2103

To ShyhKwei Chen/Watson/IBM@IBMUS

cc

bcc

Subject Re: *IBM Confidential: Enterprise Data Management Using XML project detail description

Jen-Yao Chung

Jen-Yao Chung

09/25/98 01:07 PM

To: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS, Chungti Liang/Poughkeepsie/IBM@IBMUS
cc: ShyhKwei Chen/Watson/IBM@IBMUS, Anant Jhingran/Watson/IBM@IBMUS
From: Jen-Yao Chung/Watson/IBM @ IBMUS
Subject: *IBM Confidential: Enterprise Data Management Using XML project detail description

Project Name: Enterprise Data Management Using XML

Project Objective:

In addition to storing documents in repositories/databases in XML format, there is a need to store and retrieve XML data in current enterprise data formats, to enable rapid exploitation of existing data in e-commerce XML applications while continuing to support existing applications against that data.

Previous Work:

XML activities

- . Proposed transparent XML/EDI generic translation/transportation/rendering schemes, and generated a proof-of-concept prototype
- . Produced document turnaround logic
- . Filed two patents on dynamic business process automation system using XML, and automatic XML display script/style sheet and DTD generation

Net.Data OS390 delivery

- . Included DB2 connections, national language support, and numerous backend scripts' integration such as REXX, PERL, and compiled-C code etc..
- . took part in Beta customer support program

Work Items:

This research project will propose techniques and algorithms to manage the automatic composing of XML documents from existing enterprise data, and conversion back to proprietary formats from XML. The project will include effective ways to prepare XML documents from multiple enterprise data sources using XML name spaces, and algorithms to combine/merge DTDs.

Potential Deliverables:

Initial deliverables will include articulation of the OS/390 XML strategy, proof-of-concept validation tools/programs, and potential patent filing and paper publication.
[REDACTED]

Jen-Yao Chung/Watson/IBM

05/27/2004 04:14 PM
This document expires on
05/27/2103

To ShyhKwei Chen/Watson/IBM@IBMUS

cc

bcc

Subject Re: OE access to OS/390 legacy data stores

Denise Y. Dyko 10/13/98 05:42 PM

Denise Y. Dyko 10/13/98 05:42 PM

To: Don Ault/Poughkeepsie/IBM@ibmus, John Thompson/Poughkeepsie/IBM@IBMUS, Eric Porter/Poughkeepsie/IBM@IBMUS
cc: Jen-Yao Chung/Watson/IBM@ibmus
From: Denise Y. Dyko/Poughkeepsie/IBM @ IBMUS
Subject: Re: OE access to OS/390 legacy data stores

Thank you all for your responsiveness. John, we have defined the following research project related to XML on OS/390:

In addition to storing documents in repositories/databases in XML format, there is a need to store and retrieve XML data in current enterprise data formats, to enable rapid exploitation of existing data in e-commerce XML applications while continuing to support existing applications against that data. This research project will propose techniques and algorithms to manage the automatic composing of XML documents from existing enterprise data, and conversion back to proprietary formats from XML. The project will include effective ways to prepare XML documents from multiple enterprise data sources using XML name spaces, and algorithms to combine/merge DTDs. Initial deliverables will include articulation of the OS/390 XML strategy and its validation via proof of concept. The OS/390 division, with research, will also undertake validation with customers and ISVs.

The sentence I've marked in blue was the impetus for determining how OE references MVS datasets today. I realize this project description is high-level, but the project is just now getting kicked off.

Cheers, Denise

Lotus Notes Address: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS

VM Address: KGNVMC.DYKO@VM

Internet Address: DYD@VNET.IBM.COM

Phone: (914)435-6903, t/l 8-295-6903



Exhibit C

Jen-Yao Chung/Watson/IBM
05/27/2004 04:14 PM
This document expires on
05/27/2103

To ShyhKwei Chen/Watson/IBM@IBMUS
cc
bcc
Subject Re: *IBM Confidential: XML Activities and Contacts for
AS/400, RS/6000, S/390

Best regards,
Jen-Yao Chung
CTO, Global Electronics Industry (GEI)
914/945-3422 (T/L 862) jychung@us.ibm.com
<http://www.research.ibm.com/people/j/jychung>
Denise Y. Dyko 11/30/98 05:44 PM

Denise Y. Dyko 11/30/98 05:44 PM

To: Gerry Meyer/Rochester/IBM@IBMUS
cc: David Boutcher/Rochester/IBM@IBMUS, De Vonna Naivar/Austin/IBM@IBMUS, Theresa
Backlund/Rochester/IBM@IBMUS, Mike Tomashek/Rochester/IBM@IBMUS, Gerry
Hackett/Austin/IBM@IBMUS, Thomas Rozmus/Poughkeepsie/IBM@IBMUS, Doug
Balog/Poughkeepsie/IBM@IBMUS, Jim Porell/Poughkeepsie/IBM@IBMUS, Jen-Yao
Chung/Watson/IBM@ibmus
From: Denise Y. Dyko/Poughkeepsie/IBM @ IBMUS
Subject: Re: *IBM Confidential: XML Activities and Contacts for AS/400, RS/6000, S/390

Hi, Gerry, we still haven't managed to connect by phone. Our XML efforts are at "workbook" level, not yet strategy document. I've attached the first draft of the OS/390 XML workbook. Our key focus is on infrastructure and we have funded 2PY in Reserach for the following project definition (which is also included in the Workbook):

RESEARCH PROJECT DEFINITION:

In addition to storing documents in repositories/databases in XML format, there is a need to store and retrieve XML data in current enterprise data formats, to enable rapid exploitation of existing data in e-commerce XML applications while continuing to support existing applications against that data. This research project will propose techniques and algorithms to manage the automatic composing of XML documents from existing enterprise data, and conversion back to proprietary formats from XML. The project will include effective ways to prepare XML documents from multiple enterprise data sources using XML name spaces, and algorithms to combine/merge DTDs. Initial deliverables will include articulation of the OS/390 XML strategy and its validation via proof of concept. The OS/390 division, with research, will also undertake validation with customers and ISVs.

Other work will include support of XML by individual products/components (e.g., DB2 as an XML repository) and exploitation of XML by individual products/components in their own implementation (e.g., to replace existing proprietary data formats). But we have no overall OS/390 product plan yet --and certainly not one that is funded. We did begin testing of the XML parser on OS/390 and ran into EBCDIC/ASCII problems; I will be interested to hear about your experiences with the XML parser on AS/400.

Hope to talk to you soon.

ST AVAILABLE COPY

Cheers, Denise

Lotus Notes Address: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS

VM Address: KGNVMC.DYKO@VM

Internet Address: DYD@VNET.IBM.COM

Phone: (914)435-6903, t/l 8-295-6903

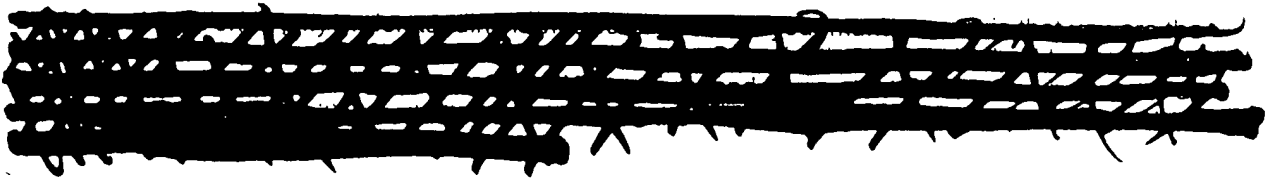


Gerry Meyer



11/23/98 10:53

To: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS, De Vonna Naivar/Austin/IBM@IBMUS
cc: David Boutcher/Rochester/IBM@IBMUS, Jim Herring/Rochester/IBM@IBMUS, Theresa
Backlund/Rochester/IBM@IBMUS, Mike Tomashek/Rochester/IBM@IBMUS, Gerry
Hackett/Austin/IBM@IBMUS, Thomas Rozmus/Poughkeepsie/IBM@IBMUS, Doug
Balog/Poughkeepsie/IBM@IBMUS
From: Gerry Meyer/Rochester/IBM@IBMUS
Subject: *IBM Confidential: XML Activities and Contacts for AS/400, RS/6000, S/390



Please complete the attached Freelance chart for your system showing your XML contacts and activities
Please add any additional categories, activities, etc. Give me or Dave Boutcher a call for any questions

Gerry Meyer
Senior Technical Staff Member
AS/400 System Software Development
Internet ID: gerrym@us.ibm.com
Ext 3-7266

XML Activities and Contacts.PRZ has been deleted (was saved in repository My Attachments
Repository -> ☐) from this note on 14 August 2000 by Jen-Yao Chung

390xmlwkbk.lwp has been deleted (was already in repository My Attachments Repository -> ☐) from
this note on 14 August 2000 by Jen-Yao Chung



Exhibit D

Jen-Yao Chung/Watson/IBM

05/27/2004 04:13 PM

This document expires on

05/27/2103

To ShyhKwei Chen/Watson/IBM@IBMUS


cc

bcc

Subject Re: XML 390 foils

Denise Y. Dyko 12/03/98 06:10 PM

Denise Y. Dyko 12/03/98 06:10 PM

To: Ming-Ling Lo/Watson/IBM@IBMUS
cc: Jen-Yao Chung/Watson/IBM@ibmus, ShyhKwei Chen/Watson/IBM@IBMUS, George Zagelow/Santa Teresa/IBM@ibmus
From: Denise Y. Dyko/Poughkeepsie/IBM @ IBMUS
Subject: Re: XML 390 foils 

Thank, Ming-Ling. This looks wonderful; I look forward to tomorrow's call. Would one of you be willing to present at the XML summit? (George, I think we have a presenter.)

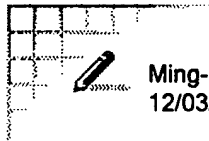
Cheers, Denise

Lotus Notes Address: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS

VM Address: KGNVMC.DYKO@VM

Internet Address: DYD@VNET.IBM.COM

Phone: (914)435-6903, t/l 8-295-6903



Ming-Ling Lo
12/03/98 05:56 PM

To: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS
cc: Jen-Yao Chung/Watson/IBM@IBMUS, ShyhKwei Chen/Watson/IBM@IBMUS
From: Ming-Ling Lo/Watson/IBM @ IBMUS
Subject: XML 390 foils

Hi, Denise:

I am also involved in the XML 390 project.

In the attachment please find the set of foils for tomorrow's phone conference

Please let me know if there is any problem.

Thanks.

-Mingling

Ming-Ling Lo

Research Staff Member, IBM T.J.Watson Research Center

Phone: (914) 784-7734, t/l: 863 7734

Email: mingling@watson.ibm.com, mlo@us.ibm.com

Email: mingling@watson.ibm.com, mllo@us.ibm.com

Xml390.prz has been deleted (was already in repository My Attachments Repository -> ) from this note on 14 August 2000 by Jen-Yao Chung

Jen-Yao Chung/Watson/IBM

05/27/2004 04:13 PM

This document expires on

05/27/2103

To ShyhKwei Chen/Watson/IBM@IBMUS

cc

bcc

Subject Re: XML 390 Access Server presentation at the XML summit

Denise Y. Dyko 12/04/98 09:48 AM

Denise Y. Dyko 12/04/98 09:48 AM

To: George Zagelow/Santa Teresa/IBM@ibmus

cc: Jen-Yao Chung/Watson/IBM@ibmus, ShyhKwei Chen/Watson/IBM@IBMUS, Ming-Ling Lo/Watson/IBM@IBMUS

From: Denise Y. Dyko/Poughkeepsie/IBM @ IBMUS

Subject: XML 390 Access Server presentation at the XML summit

Hi, George, Ming-Ling Lo or Shyh-Kwei Chen can present at the XML Summit on "XML Access Server for IBM 390." A draft of the presentation is in the attached note (which I also sent you yesterday). I'd suggest 45 minutes for the presentation. The XML Access Server is the XML research project being funded by OS/390.

Cheers, Denise

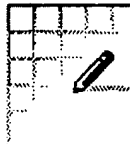
Lotus Notes Address: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS

VM Address: KGNVMC.DYKO@VM

Internet Address: DYD@VNET.IBM.COM

Phone: (914)435-6903, t/l 8-295-6903

----- Forwarded by Denise Y. Dyko/Poughkeepsie/IBM on 12/04/98 09:44 AM -----



Ming-Ling Lo

12/03/98 05:56 PM

To: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS

cc: Jen-Yao Chung/Watson/IBM@IBMUS, ShyhKwei Chen/Watson/IBM@IBMUS

From: Ming-Ling Lo/Watson/IBM @ IBMUS

Subject: XML 390 foils

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Please let me know if there is any problem.


Thanks.

-Mingling

Ming-Ling Lo

Research Staff Member, IBM T.J.Watson Research Center

Phone: (914) 784-7734, t/l: 863 7734
Email: mingling@watson.ibm.com, mlo@us.ibm.com

Xml390.prz has been deleted (was already in repository My Attachments Repository -> ) from this note on 14 August 2000 by Jen-Yao Chung

Jen-Yao Chung/Watson/IBM

05/27/2004 04:13 PM

This document expires on

05/27/2103

To ShyhKwei Chen/Watson/IBM@IBMUS

cc

bcc

Subject Re: XML 390 foils

Denise Y. Dyko 12/04/98 12:55 PM

Denise Y. Dyko 12/04/98 12:55 PM

To: Gerry Meyer/Rochester/IBM@IBMUS

cc: Jen-Yao Chung/Watson/IBM@ibmus, Ming-Ling Lo/Watson/IBM@IBMUS, ShyhKwei Chen/Watson/IBM@IBMUS

From: Denise Y. Dyko/Poughkeepsie/IBM @ IBMUS

Subject: XML 390 foils

Hi, Gerry, attached is a presentation that further defines the Research project for an XML Access Server for 390.

Ming-Ling or ShyhKwei will be presenting the XML Access Server at the XML Summit. You can contact Jen-Yao Chung (project manager) or either of them for more information.

Cheers, Denise

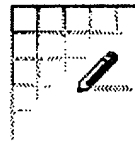
Lotus Notes Address: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS

VM Address: KGNVMC.DYKO@VM

Internet Address: DYD@VNET.IBM.COM

Phone: (914)435-6903, t/l 8-295-6903

----- Forwarded by Denise Y. Dyko/Poughkeepsie/IBM on 12/04/98 12:09 PM -----



Ming-Ling Lo

12/03/98 05:56 PM

To: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS

cc: Jen-Yao Chung/Watson/IBM@IBMUS, ShyhKwei Chen/Watson/IBM@IBMUS

From: Ming-Ling Lo/Watson/IBM @ IBMUS

Subject: XML 390 foils

Hi, Denise:

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Please let me know if there is any problem.

Thanks.

-Mingling

Ming-Ling Lo

Research Staff Member, IBM T.J.Watson Research Center

Phone: (914) 784-7734, t/l: 863 7734


Xml390.prz has been deleted (was already in repository My Attachments Repository ->📎) from this note on 14 August 2000 by Jen-Yao Chung

Jen-Yao Chung/Watson/IBM
05/27/2004 04:12 PM
This document expires on
05/27/2103

To ShyhKwei Chen/Watson/IBM@IBMUS
cc
bcc
Subject Re: XML 390 Access Server presentation at the XML summit

Denise Y. Dyko 12/09/98 02:29 PM

Denise Y. Dyko 12/09/98 02:29 PM

To: David Fallside/Santa Teresa/IBM@ibmus
cc: Ming-Ling Lo/Watson/IBM@IBMUS, ShyhKwei Chen/Watson/IBM@IBMUS, Jen-Yao Chung/Watson/IBM@ibmus, Robert Geiner/Poughkeepsie/IBM@IBMUS, George Zagelow/Santa Teresa/IBM@ibmus
From: Denise Y. Dyko/Poughkeepsie/IBM @ IBMUS
Subject: Re: XML 390 Access Server presentation at the XML summit 

Dave, perhaps the word "server" is confusing. Think of the 390 project as an application. I checked with Rob Geiner and he isn't aware that WebSphere is planning on providing XML support for access to legacy data. Are you aware of any WebSphere work in this area? Our application could *work* in a WebSphere environment --we already have a lunchtime meeting scheduled at the XML summit next week to begin discussing implementation environment.


I'm in San Jose this week for the SDC (and to meet with DB2 folks) and have irregular access to the network. Most immediately, my primary interest is getting this topic introduced at the XML summit. Ming and Shyh-Kwei, could you cut down the pitch to 15 minutes? Can you work with Dave and George directly? I suspect I might be a bottleneck this week.

And I'll try to call you, Dave.

Cheers, Denise
Lotus Notes Address: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS
VM Address: KGNVMC.DYKO@VM
Internet Address: DYD@VNET.IBM.COM
Phone: (914)435-6903, t/l 8-295-6903

David Fallside

12/08/98 09:30 PM

To: Denise Y. Dyko/Poughkeepsie/IBM
cc: George Zagelow/Santa Teresa/IBM@ibmus, Jen-Yao Chung/Watson/IBM@ibmus, Ming-Ling Lo/Watson/IBM@IBMUS, ShyhKwei Chen/Watson/IBM@IBMUS
From: David Fallside/Santa Teresa/IBM@IBMUS
Subject: Re: XML 390 Access Server presentation at the XML summit 


Denise, after looking over Mingling's foils and reading your reply, I have to say that XAS/390 appears very similar to Websphere
and I don't see that XAS/390 is any more or less of an architecture or application than Websphere is already. One option might be

to put a short, say 15 minute, XAS/390 presentation after the Websphere presentation in order to invite questions of comparison.

Another option is to discuss the particular requirements of the 390 platform, perhaps using input from both XAS/390 and the Websphere/390 project.

.....
David C. Fallside, IBM
916.457.2830
fallside@us.ibm.com

Denise Y. Dyko 12/08/98 07:36 AM

To: George Zagelow/Santa Teresa/IBM@ibmus
cc: David Fallside/Santa Teresa/IBM@ibmus, Jen-Yao Chung/Watson/IBM@ibmus, Ming-Ling Lo/Watson/IBM@IBMUS, ShyhKwei Chen/Watson/IBM@IBMUS
From: Denise Y. Dyko/Poughkeepsie/IBM @ IBMUS
Subject: Re: XML 390 Access Server presentation at the XML summit 


Hi, George, I don't know the topics of the other proposed presentations but I suspect the 390 application server might be unique in terms of its generalized solution for XML access to legacy data. It's an architecture as much as an application. The first draft of the presentation does not include implementation issues and requirements (should the XML Access Server be implemented as a WebSphere application? under a ComponentBroker environment?). The funding we have does not even cover all of the implementation issues, including currency issues (concurrent access to the data by existing applications and new XML applications). We can add a foil on those issues and requirements.

I expect many of the audience should know about this project and might have requirements for this project, at least in terms of the ability to integrate what they're doing or perhaps in their ability to depend on the existence of this architecture. If necessary, I imagine we can present in half an hour. But I do think it's important that the XML community be aware of this project.

Cheers, Denise

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Internet Address: DYD@VNET.IBM.COM
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 George Zagelow
12/04/98 06:34 PM
.....

To: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS
cc: David Fallside/Santa Teresa/IBM@ibmus
From: George Zagelow/Santa Teresa/IBM@IBMUS
Subject: Re: XML 390 Access Server presentation at the XML summit 

Denise, thanks for the proposed talk. We're in evaluation mode as we've got more talks than will fit in the agenda. Is there anything unique in the application? And do you have requirements or issues to bring forward to Robert? I don't see any in the pitch.... Thanks much...

Regards, George
Programming Consultant
1-408-463-4041 or 543-4041, FAX 4763
Lotus Notes: George Zagelow/Santa Teresa/IBM@IBMUS

VM: IBMUSM50(ZAGELow)
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Denise Y. Dyko 12/04/98 06:48 AM

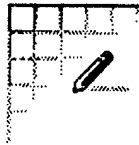
To: George Zagelow/Santa Teresa/IBM@ibmus
cc: Jen-Yao Chung/Watson/IBM@ibmus, ShyhKwei Chen/Watson/IBM@IBMUS, Ming-Ling Lo/Watson/IBM@IBMUS
From: Denise Y. Dyko/Poughkeepsie/IBM @ IBMUS
Subject: XML 390 Access Server presentation at the XML summit

Hi, George, Ming-Ling Lo or Shyh-Kwei Chen can present at the XML Summit on "XML Access Server for IBM 390." A draft of the presentation is in the attached note (which I also sent you yesterday). I'd suggest 45 minutes for the presentation. The XML Access Server is the XML research project being funded by OS/390.

Cheers, Denise

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Forwarded by Denise Y. Dyko/Poughkeepsie/IBM on 12/04/98 09:44 AM



Ming-Ling Lo
12/03/98 05:56 PM

To: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS
cc: Jen-Yao Chung/Watson/IBM@IBMUS, ShyhKwei Chen/Watson/IBM@IBMUS
From: Ming-Ling Lo/Watson/IBM @ IBMUS
Subject: XML 390 foils

Hi, Denise:

I am also involved in the XML 390 project.
In the attachment please find the set of foils for tomorrow's phone conference.
Please let me know if there is any problem.
Thanks.

-Mingling

Ming-Ling Lo
Research Staff Member, IBM T.J.Watson Research Center
Phone: (914) 784-7734, t/l: 863 7734
Email: mingling@watson.ibm.com, mllo@us.ibm.com

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Jen-Yao Chung/Watson/IBM

05/27/2004 04:12 PM

This document expires on

05/27/2103

To ShyhKwei Chen/Watson/IBM@IBMUS

cc

bcc

Subject Re: XML Summit Agenda

Jen-Yao Chung

12/10/98 07:06 PM

To: Denise Y. Dyko/Poughkeepsie/IBM@IBMUS
cc: Ming-Ling Lo/Watson/IBM@IBMUS, ShyhKwei Chen/Watson/IBM@IBMUS, Anant
Jhingran/Watson/IBM@IBMUS
From: Jen-Yao Chung/Watson/IBM @ IBMUS
Subject: Re: XML Summit Agenda

Hi Denise, thank to your recommendation. We are glad to see that our xml/390 presentation was accepted.

Ming-Ling, ShyhKwei, please revise the presentation following the instruction for the speaker information. Please run your presentation through Anant first. Thanks. -chung



George Zagelow

12/10/98 02:14 PM

To: Marie Wieck/Somers/IBM@ibmus, Simon Phipps/UK/IBM@IBMGB, Jason Woodard/Armonk/IBM@ibmus, Thomas Rowe/Raleigh/IBM@IBMUS, Ming-Ling Lo/Watson/IBM@IBMUS, Douglas Wright/Somers/IBM@ibmus, Andre Tost/Rochester/IBM@IBMUS, Robert Weida/Thornwood/IBM@IBMUS, Jen-Yao Chung/Watson/IBM@IBMUS, Donald Eastlake/Hawthorne/IBM@IBMUS, Noah Mendelsohn/Lotus, Joe Guthridge/ATL/Lotus@LOTUS, Dan Chang/Santa Teresa/IBM@ibmus, John Ibbotson/UK/IBM@IBMGB, Pat O'Connor/Cupertino/IBM@IBMUS, LOTUS.SBCA8178@VM, Brad Topol/Raleigh/IBM@IBMUS, Rakesh Mohan/Watson/IBM@IBMUS, Andrew Donoho/Austin/IBM@IBMUS, Yih-Shin Tan/Raleigh/IBM@IBMUS, Bob Schloss/Watson/IBM@ibmus, David Fallside/Santa Teresa/IBM@ibmus, David A Epstein/Watson/IBM@IBMUS, sanjiya@watson.ibm.com@IBMUS, Scott Sylvester/Endicott/IBM@IBMUS, David Lection/Raleigh/IBM@IBMUS, Doug Tidwell/Raleigh/IBM@IBMUS, Toby Lehman/Almaden/IBM@IBMUS, Craig Hayman/Raleigh/IBM@IBMUS, Chris Piekny/Toronto/IBM@IBMCA, Dave Pullin/Raleigh/IBM@IBMUS, Tom Glover/Toronto/IBM@IBMCA, Giuseppe Facchetti/Santa Teresa/IBM@ibmus, Stephen Brodsky/Santa Teresa/IBM@IBMUS
cc: Robert LeBlanc/Somers/IBM@IBMUS, Angel Luis Diaz/Watson/IBM@IBMUS, David Sharp/Raleigh/Contr/IBM@IBMUS
From: George Zagelow/Santa Teresa/IBM@IBMUS
Subject: XML Summit Agenda

Greetings, speakers for the XML Summit!! Below is the agenda that will be appearing on the web site today. We've tried for some rough groupings of topics, taking into consideration known speaker scheduling conflicts. We'd like to stay as close to this schedule as possible. Please check your names / topics. You'll find the timings to be perhaps shorter than we had discussed. Please try to accomodate, as the schedule is very dense, and we'll have to manage the time closely. If there are issues/changes for speaker names, topic titles, or timing, please let me know asap. In particular, for those talks where multiple presenters are listed, please let me know who the speaker will be. And, finally, the Summit web site has important speaker information, including handling of copies of your presentation. Thanks much, and I look forward to seeing you all next week...

Regards, George
Programming Consultant
1-408-463-4041 or 543-4041, FAX 4763
Lotus Notes: George Zagelow/Santa Teresa/IBM@IBMUS
VM: IBMUSM50(ZAGELow)
Internet: zagelow@us.ibm.com

----- Forwarded by George Zagelow/Santa Teresa/IBM on 12/10/98 10:53 AM -----

Tuesday, December 15th

8:30 Welcome and Introduction - Robert LeBlanc
8:45 Strategy Update - Marie Wieck
9:15 Marketing Update - Simon Phipps
9:45 eBAF - Jason Woodard
10:15 Break
10:45 WebSphere - Tom Rowe
11:30 XML Access Server for the IBM 390 - Ming-Ling Lo
noon Lunch
1:00 XML and Solutions - Doug Wright
1:30 San Francisco - Andre Tost
2:00 RosettaNet, Catalog Architect, and the Information Supply Chain - Robert Weida
2:30 XML/EDI Pilot for IBM Procurement - Jen-Yao Chung
3:00 Break
3:30 Open Trading Protocol (IOTP) - Donald Eastlake
3:50 Lotus - Noah Mendelsohn and Joe Guthridge
4:20 DB2 - Dan Chang
4:50 MQ Series and CICS - John Ibbotson

Wednesday, December 16th

8:30 XML Parser, XPK4J, etc. - Pat O'Connor
9:00 LotusXSL Processor - Scott Boag
9:20 Transcoding and PBC - Brad Topol
9:50 XML/CAF - Rakesh Mohan
10:10 Break
10:40 Trinity - Andrew Donoho
11:00 Host Integration - Yihshin Tan
11:20 IBM Research Topics - Bob Schloss
12:00 Lunch
1:00 Standards Update - Fallside
2:00 BML - David E/ Sanjiva Weerarana (Watson)
2:20 PDML - Scott Sylvester / Doug Boucher (Rochester)
2:40 Lidea - David Lection
3:00 Break
3:30 XML Directory Access and Query - Doug Tidwell
3:50 Modal - Armando Morales (RTP) / Toby Lehman (Almaden)
4:10 Convergence activities - David Epstein or Pat O'Connor
4:20 Visual Age - Craig Hayman
4:50 Component Broker - Chris Piekny

Thursday, December 17th

8:30 XML Java Beans - Dave Pullin
8:50 Net Objects - Tom Glover
9:05 Data Warehousing and XML - Facchetti
9:35 RDF - Bob Schloss for 20 min
9:55 Break
10:35 XMI/RDF/XML Schema positioning - Brodsky
10:55 Summary / Open discussion - Wieck
11:45 Closing - Robert LeBlanc
noon Summit Ends

XML Access Server for IBM 390

Ming-Ling Lo, Shyh-Kwei Chen, Jen-Yao Chung
Institute of Advanced Commerce
IBM T.J. Watson Research Center

Project Overview

- Enable rapid exploitation of existing enterprise data in XML eCommerce applications
 - Co-existence with existing enterprise data applications
- Store/retrieve XML data in current enterprise data formats
 - Automatic composition of XML docs from and decomposition of XML docs into multiple enterprise data sources
- Partnership with Poukeepsie (Denise Dyko)

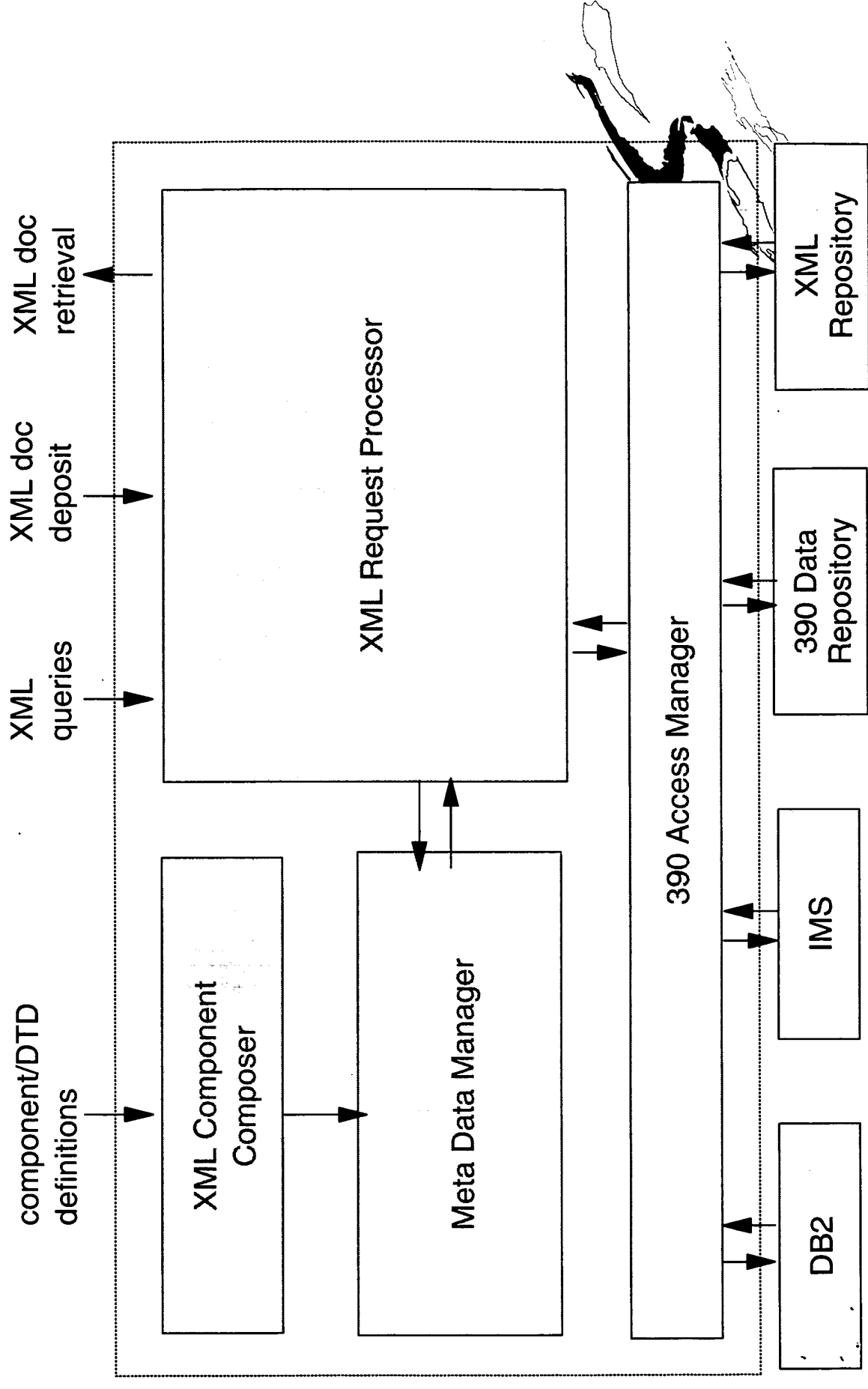


XML Access Solutions

- A. Store one XML doc in one piece
 - e.g. as one file, as one LOB in a record
- B. Store one XML doc in one or more pieces
 - e.g. linked by xlinks
- C. Store XML docs in XML format
 - tags really appear in physical storage
- D. Store XML docs in more than XML format
 - tags not necessarily appear in physical storage
- XAS Project - An effort in B&D



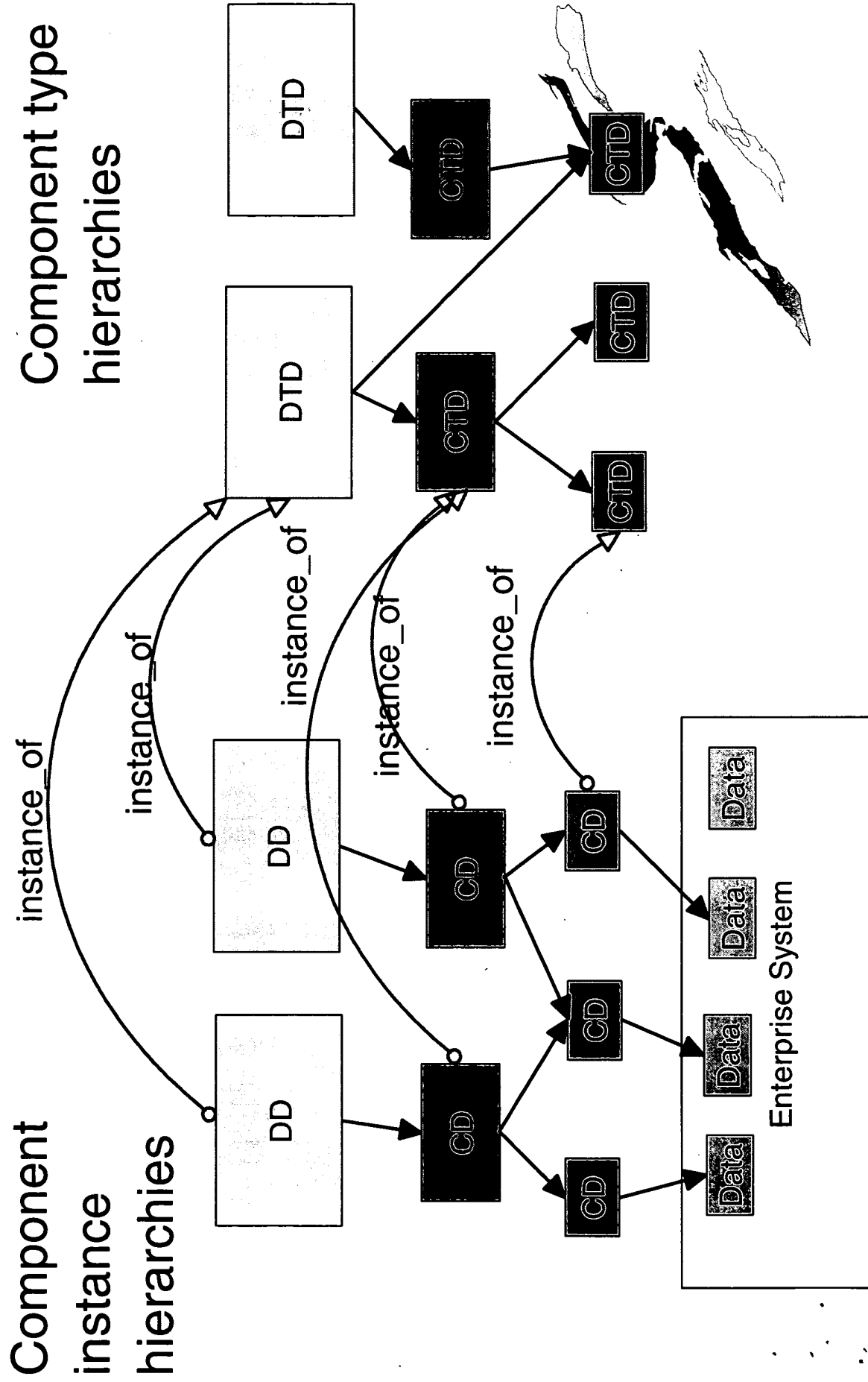
XAS/390 Overall Architecture



XML Meta Data in XAS/390

- Document type definitions(DTD)
 - Define legal document structures
- Also use the following internal, logical entities ---
- Component type definitions (CTD)
 - Building blocks of DTD
- Document definitions (DD)
 - Instantiation of DTD
- Component definition (CD)
 - Instantiation of CTD
 - Lowest level maps to data sources
- May use XML namespaces, xlink





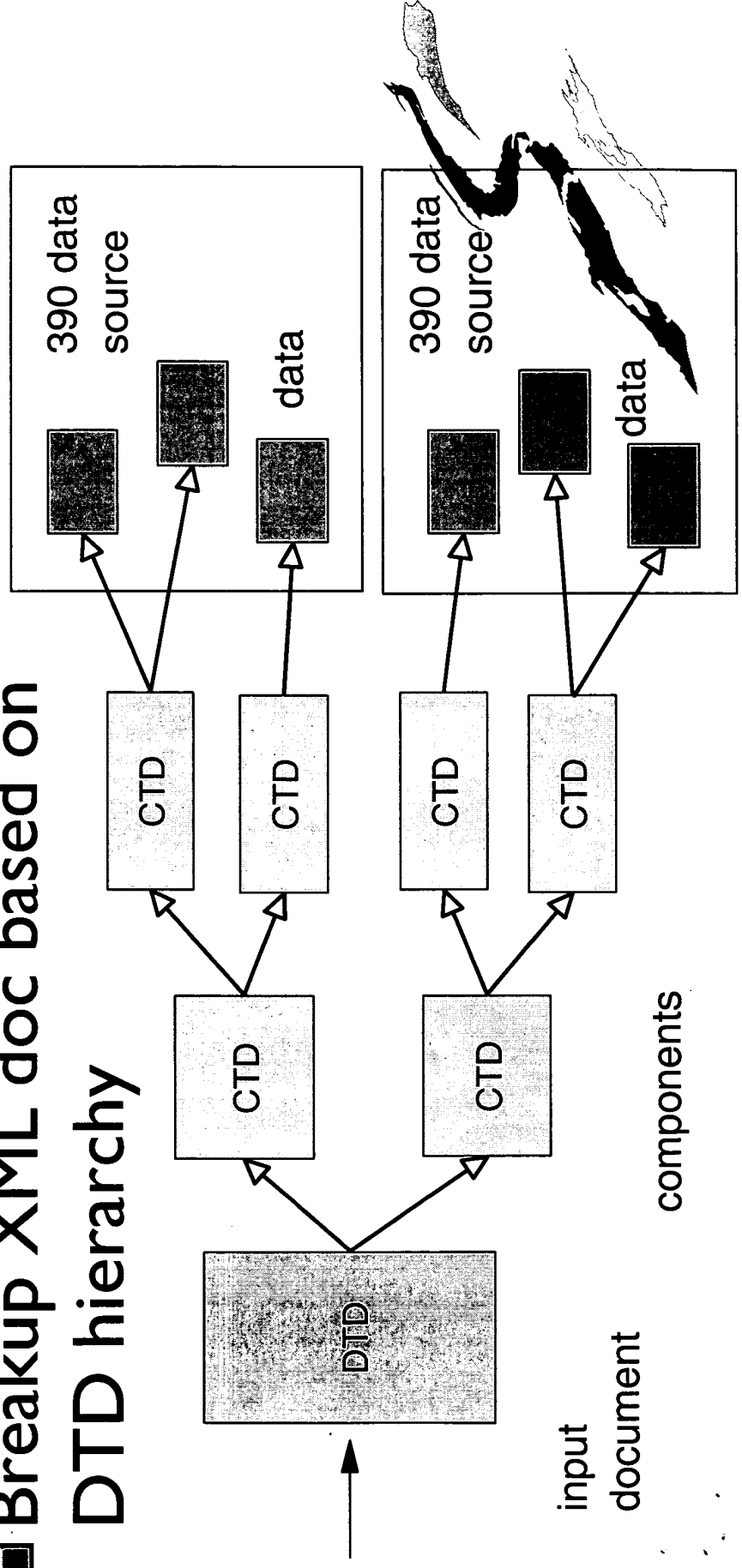
XAS Meta Data Manager

- Consists of
 - XML Meta Data Manager
 - Manage XML component library (DTD, etc..)
 - Manage mapping from CTD/CD to data sources
 - 390 Meta Data Manager
 - Has knowledge about
 - content, locations, formats of enterprise data
 - other information for accessing enterprise data systems (user name, password, etc.)



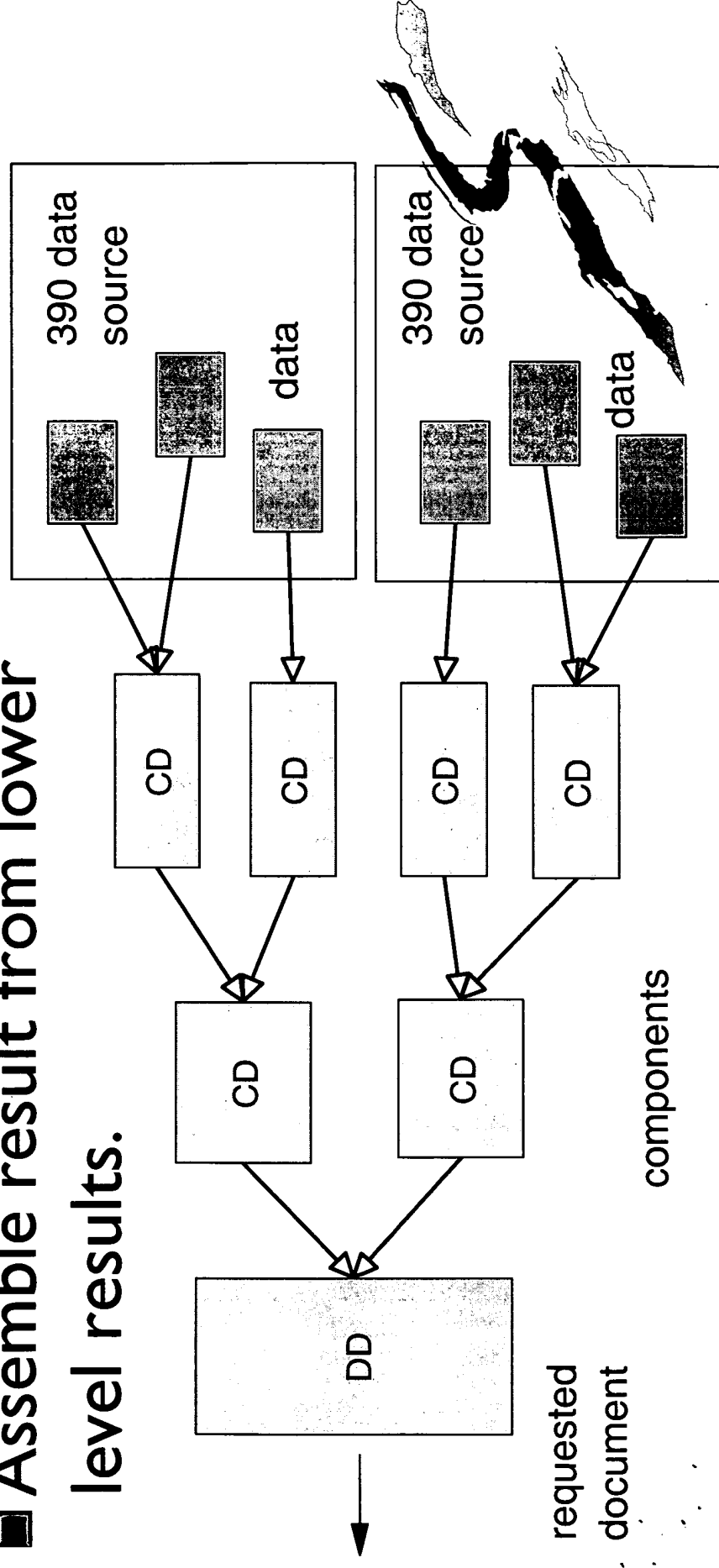
Document Deposit

- Translate into multiple enterprise system source access requests
- Breakup XML doc based on DTD hierarchy



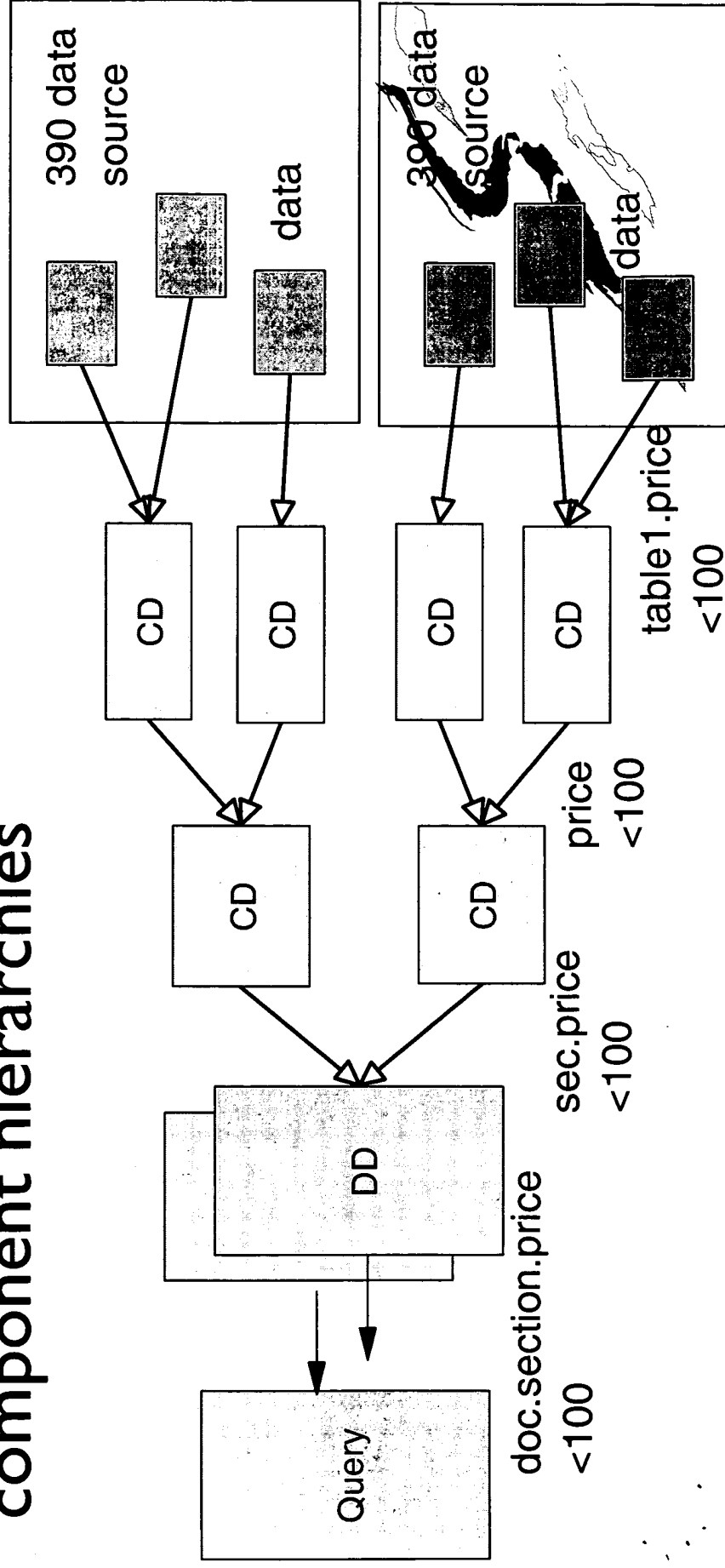
Document Retrieval

- Translated into multiple enterprise system access requests
- Assemble result from lower level results.



XML Query

- Similar to document retrieval
- Push/transform query constraints down component hierarchies



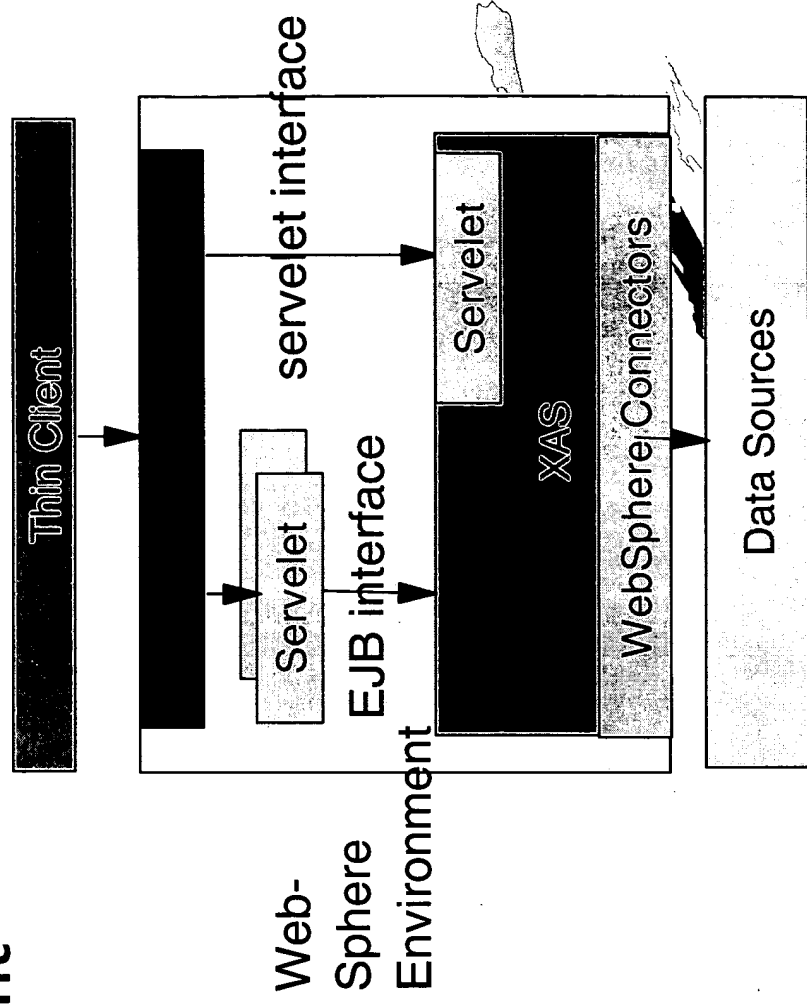
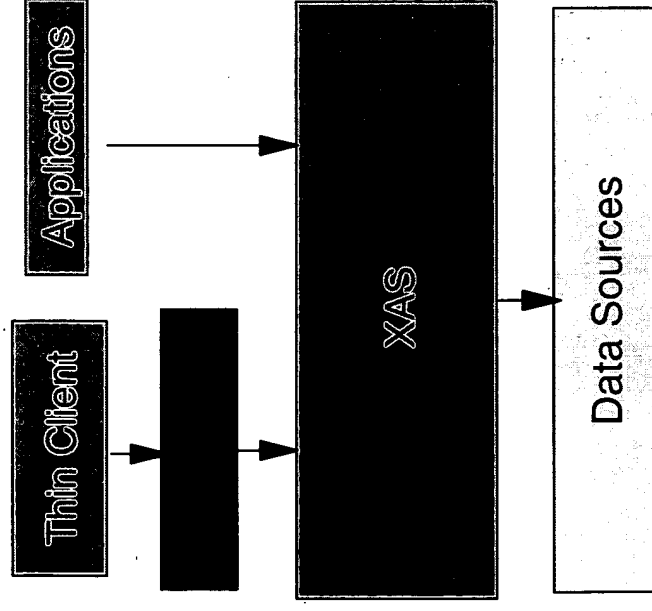
Interesting Research Questions

- Highly dynamic, flexible and cheap doc composition --
 - Create one doc is creating one DD node
- What's important may be doc content but not boundary
 - can we use this to help answer decision support questions?
- Can we dynamically create one big XML doc to answer multiple XML doc query?
- Efficiency Issues
- Data sources not under control



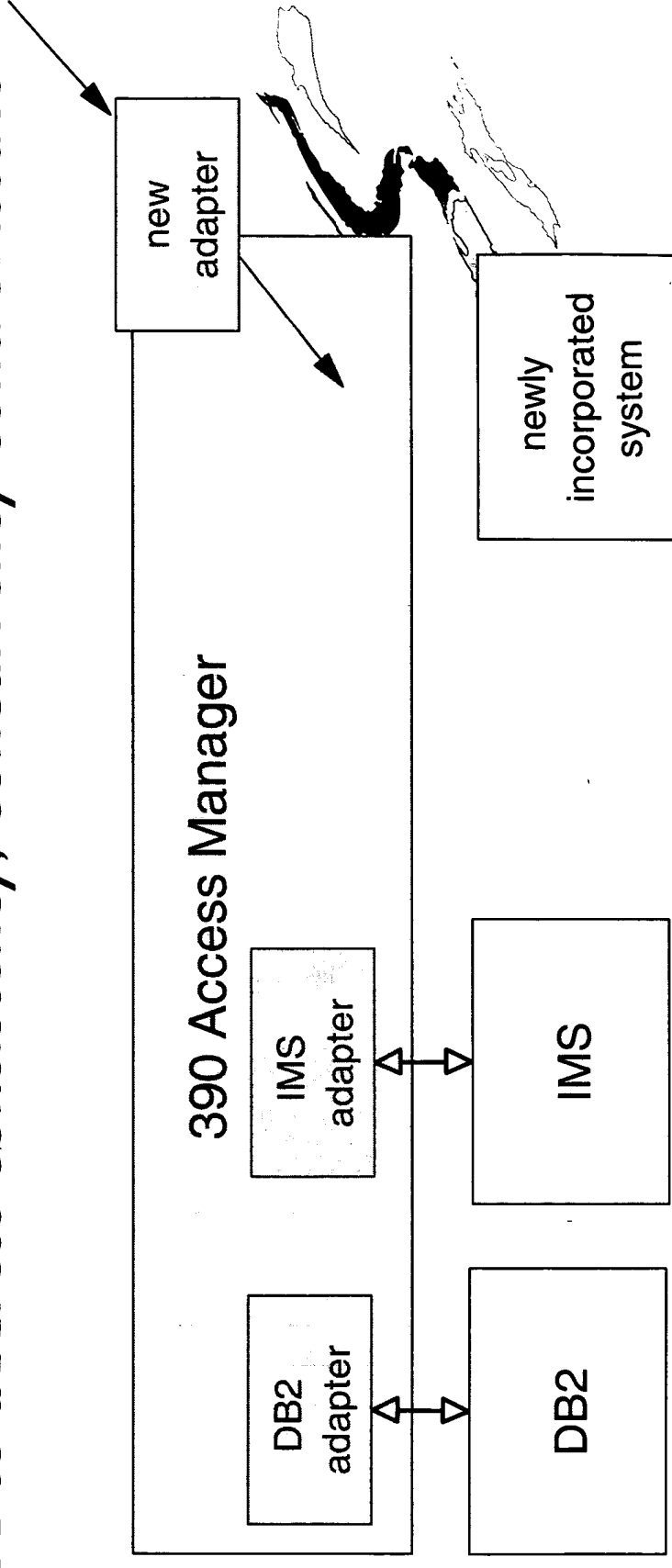
Potential Ways of Application and Deployment

- Standalone
 - Direct access by business applications and browsers.
- In WebSphere environment



390 Access Manager

- ❑ Direct access to 390 enterprise systems
- ❑ Maintain session, connection, etc..
- ❑ Limit data source specific dependency to low level
- ❑ Add new enterprise system by adding adapter
- ❑ Need to address consistency, concurrency control issues



XML Request Processing

- XML document retrievals
 - Translate into enterprise data source retrievals
- XML document deposits
 - Digested and undigested DTD
 - digested DTD: mapping to data sources is defined
 - Initially support only digested DTD
- XML queries
 - Standard not fixed yet
 - Standard may or may not be adequate
 - Closely monitor standard
 - Make implementation flexible, extensible

